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# Monetary policy of the Eurosystem

Lecture in the University of Zurich  
October 25, 2016



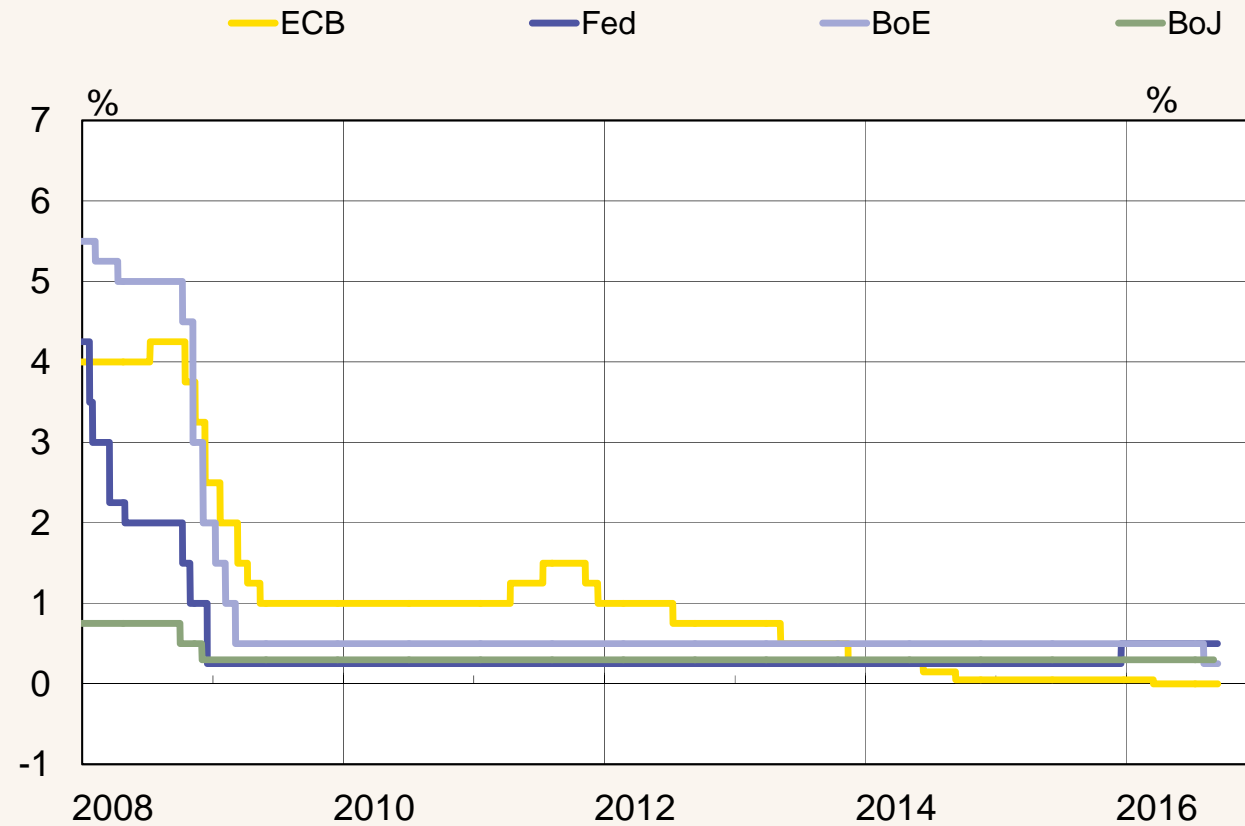


## **I. Overview of monetary policy:**

**Monetary policy exceptionally  
accommodative for a prolonged period**



## Central bank rates very low in all advanced economies



Source: Macrobond.

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## Eurosysteem non-standard monetary policy

- ***The Fixed Rate Full Allotment Liquidity Provision (2008- )***
- ***Three-Year LTROs (2011-2012)***
- ***Outright Monetary Transactions (2012)***
- ***Forward Guidance (2013- )***
- ***Targeted Long Term Refinancing Operations (2014-15 and 2016-17)***
- ***The expanded asset purchase programme (APP):***
  - ***Covered Bond Purchase Programme (2014- )***
  - ***Asset Backed Securities Purchase Programme (2014- )***
  - ***Public Sector Purchase Programme (2015- )***
  - ***Corporate Sector Purchase Programme (2016- )***



## I.1 Liquidity operations

- **The Fixed Rate Full Allotment Liquidity Provision (2008- )**
  - All counterparties pay the MRO rate of interest in the main refinancing operations and have their bids fully satisfied.
  - The introduction of the fixed-rate full allotment liquidity provision limited significantly bank funding stress as global financial crisis resulted in freezing of the interbank market.
  
- **Three-Year LTROs (2011-2012)**
  - To support bank lending and money market activity, the ECB lengthened its liquidity-providing long-term refinancing operations up to 3 years in two operations (December 2011 and February 2012).
  
- **Research:** the macroeconomic effects of ECB liquidity operations (2008-11)
  - See Gambacorta, L. B. Hofmann & G. Peersman JMCB (2014)



## I.2 Outright Monetary Transactions (OMTs)

- President Draghi in July 2012: “Whatever it takes” to preserve the euro within the limits of mandate
  - Eurosystem’s outright transactions in secondary sovereign bond markets aim at safeguarding an appropriate monetary policy transmission and the singleness of the monetary policy.
  - A necessary condition for OMTs is strict and effective conditionality attached to an appropriate European Financial Stability Facility/European Stability Mechanism (EFSF/ESM) programme.
  - The ECB has not yet made any purchases under the OMT.
  
- **Research:** Altavilla, C., D. Giannone & M. Lenza, IJCB (2016).

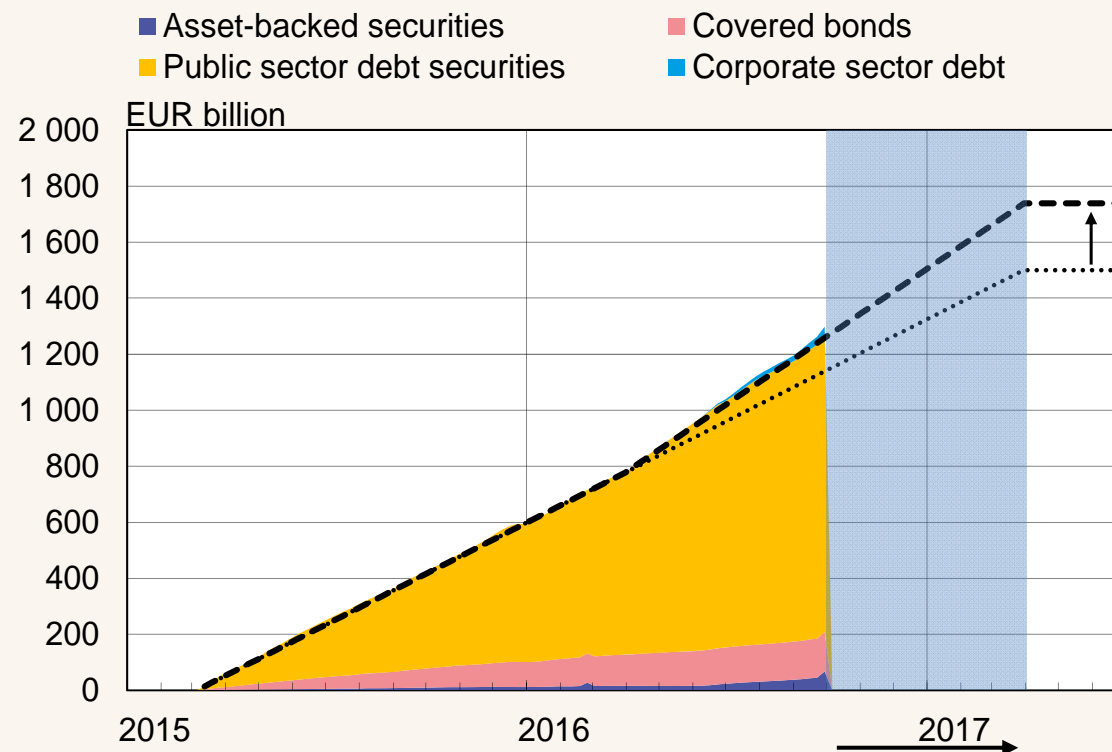


## I.3 Expanded asset purchase programme (APP) in January 2015

- Expanded asset purchase programme
  - Bonds issued by euro area governments, government agencies and European institutions as a new target for purchases
  - Combined monthly asset purchases under the three programmes of EUR 60 billion from March 2015 until at least September 2016
    - (2014- ) third covered bond purchase programme (CBPP3)
    - (2014- ) asset-backed securities purchase programme (ABSPP)
    - (2015- ) public sector purchase programme (PSPP)
- Forward guidance
  - Purchases are intended to be carried out until end-September 2016 and will in any case be conducted until the ECB governing council sees a sustained adjustment in the path of inflation consistent with our inflation aim.



## Monthly purchases extended in December 2015 to at least March 2017 and volumes increased in March 2016 from EUR 60 billion to EUR 80 billion



Sources: ECB and Macrobond.

The dashed line shows target path announced in March, the dotted line shows the previous target path announced in December 2015.

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## I.4 Further easing in March 2016 with a comprehensive monetary policy package

- ***Monetary policy rates were lowered***
  - Key interest rate to 0.0%
  - Deposit facility rate to -0.40%
  
- ***Monthly purchase volumes in the expanded asset purchase programme (APP) were expanded to €80 bn as of 1 April 2016***
  - Investment-grade bonds issued by non-banking-sector corporations included
  
- ***A second series of targeted longer-term refinancing operations (TLTRO II) launched in June 2016.***
  - Enhances the transmission of monetary policy measures to the economy by encouraging banks to increase lending to the real economy.
  - Each operation will have a 4-year maturity, and the interest rate can be as low as the rate on the deposit facility.



## The expanded asset purchase programme (APP) since March 2016

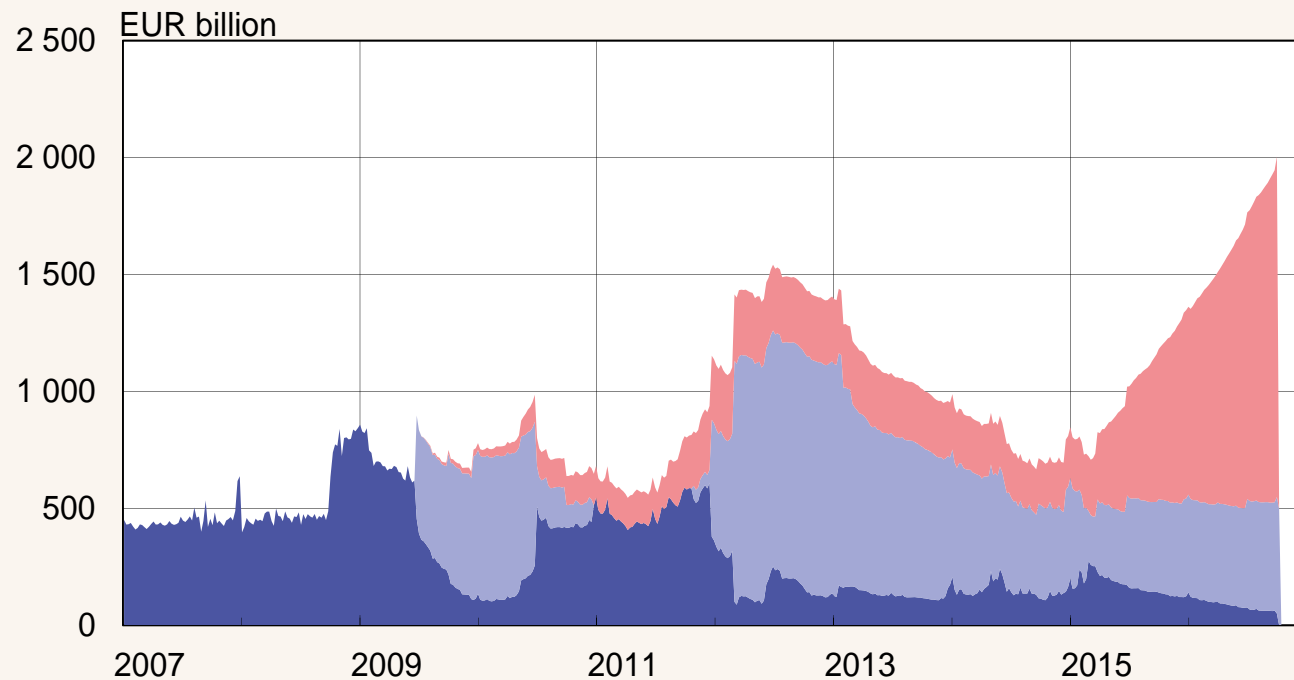
- The expanded asset purchase programme (APP) includes all purchase programmes to address the risks of a too prolonged period of low inflation.
- It consists of the
  - third covered bond purchase programme (CBPP3)
  - asset-backed securities purchase programme (ABSPP)
  - public sector purchase programme (PSPP)
  - corporate sector purchase programme (CSPP)
- Monthly purchases in public and private sector securities amount to €80 billion on average (from March 2015 until March 2016 this average monthly figure was €60 billion).
- Intended to run until the end of March 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term.



# The expanded asset purchase programme initiated in January 2015 increases eurosystem balance sheet

## Credit operations and asset purchases

- Securities held for monetary policy purposes
- Targeted and other monetary policy refinancing operations of at least 12 months
- Regular and other short-term monetary policy operations



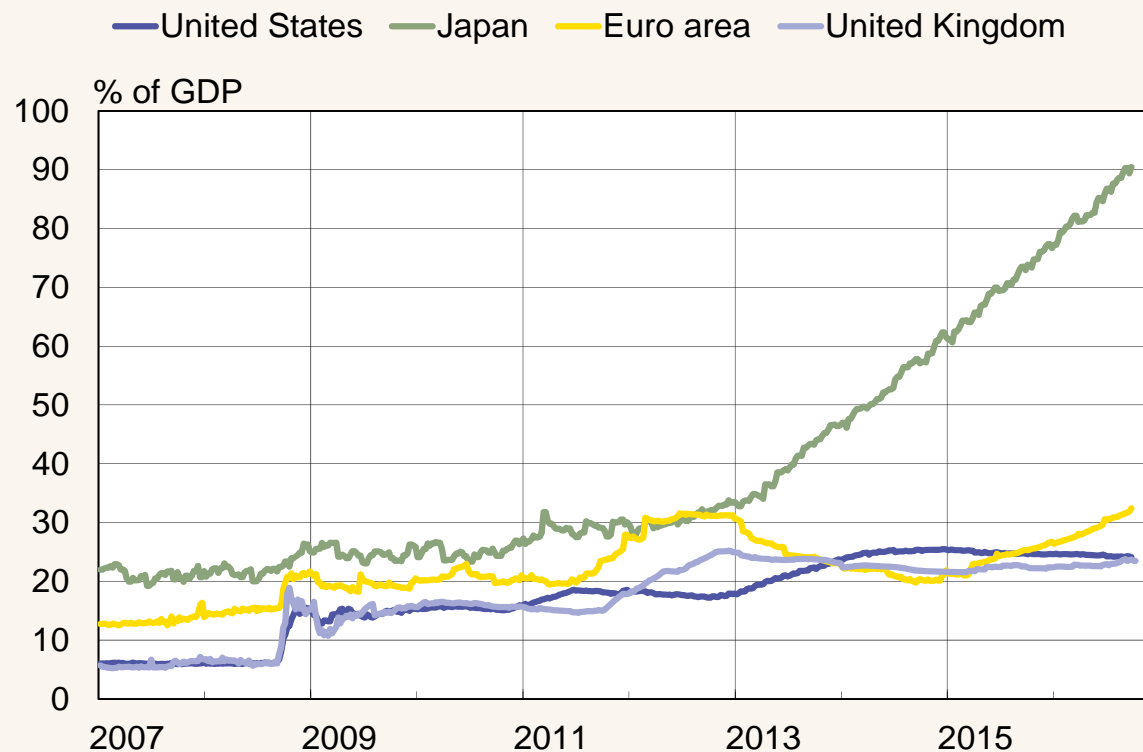
Sources: ECB and Macrobond.

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## The size of eurosystem balance sheet policies comparable to the Fed and the BoE

### Central bank balance sheets



The series for Bank of England changes 1 Jan 2014.

Source: Macrobond.

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## Draghi (2015), 3 December 2015: “Our QE has been quite effective”

- The market-based financing conditions showed a fairly significant success of our policies.
  - Euro area 10-year government bond yields fell by around 120 basis points between June 2014 and now.
  - We have the same decline in yields on bonds issued by firms and by banks.
  - The cuts in the deposit facility rate have enhanced the power of our transmission channels.
  - The euro area bank lending rates fell by approximately 80 basis points.
  
- To achieve that under normal circumstances, one needs a reduction in interest rates by 100 basis points.
  
- In the absence of our measures, inflation would be at least half a percentage point lower in 2016, and about a third of a percentage point lower in 2017.
  - Our measures are contributing to raise GDP by almost 1% in the years 2015 to 2017.



## Praet, P. (2016), 6 October 2016

- Our measures are estimated to contribute to increasing real euro area GDP growth by more than one and a half percentage points cumulatively between 2015 and 2018.
- The estimated contribution of the measures to the projected return of inflation to levels closer to our objective is significant, with an impact on the annual inflation rate, on average, over 2016 and 2018 of about half a percentage point.
- **Research**
  - Andrade, P., J. Breckenfelder, F. De Fiore, P. Karadi & O. Tristani (2016),
  - Wiedelak T. & A.G. Pascual (2016)



## I.5 ECB's forward guidance I

- Since July 2013 the ECB Governing Council has been providing forward guidance on the future path of the ECB's policy rates (conditional on the outlook for price stability)
  - “The Governing Council expects the key ECB interest rates to remain at present or lower levels for an extended period of time.”
  - “This expectation is based on the overall subdued outlook for inflation extending into the medium-term, given the broad-based weakness of the economy and subdued monetary dynamics.”
  
- Forward guidance attached to the APP
  - January 2015: “Purchases are intended to be carried out until end-September 2016 and will in any case be conducted until we see a sustained adjustment in the path of inflation consistent with our inflation aim.”
  - December 2015: “The Governing Council decided to reinvest the principal payments on the securities purchased under the APP as they mature, for as long as necessary.”



## ECB's forward guidance II

- *Forward guidance in March 2016, comprehensive monetary policy package*
  - *Purchases are intended to run until at least the end of March 2017, or beyond, if necessary, until inflation is on a sustained path towards a level below, but close to, 2%.*
  - *In view of the current outlook for price stability, the Governing Council expects the key ECB interest rates to remain at present or lower levels for an extended period of time, and well past the horizon of the asset purchases.*
  - **Research:** Bletzinger, T. & V. Wieland (2016),





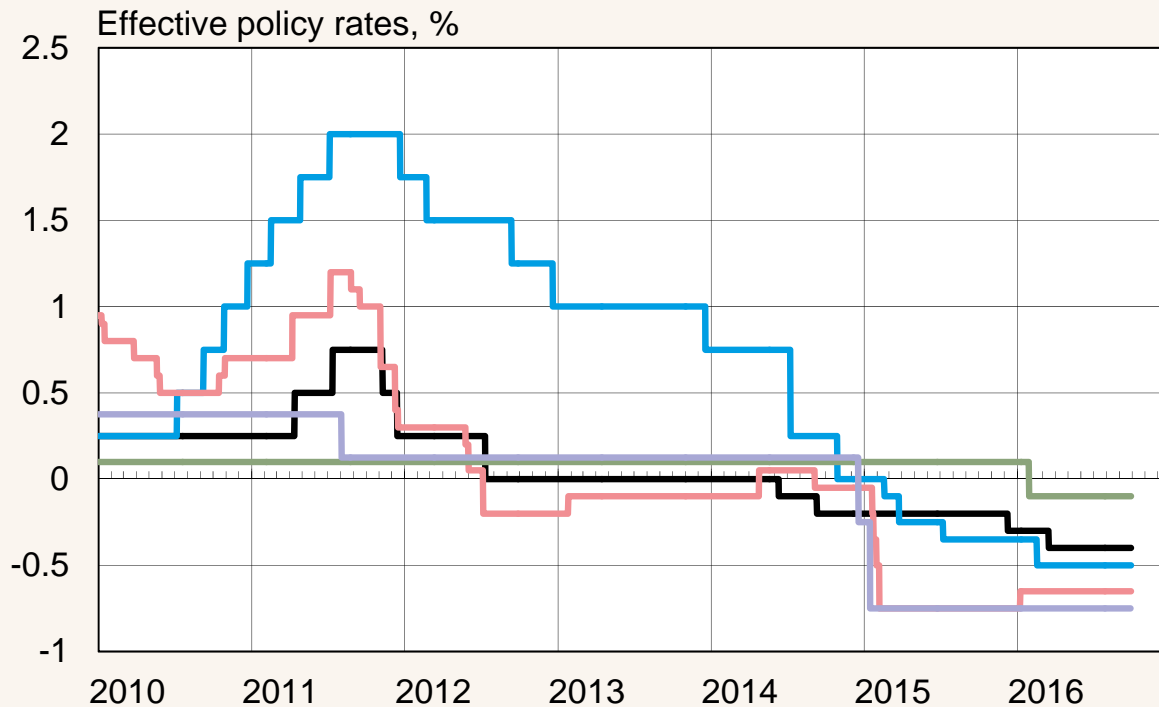
## I.6 Negative deposit rates

- The Governing Council of the ECB introduced negative deposit rate in June 2014,
  - with three further reductions in September 2014, December 2015 and March of this year.
  - In March the deposit rate was lowered to -0,4 %.
  
- The main objectives of this measure are twofold:
  - to further lower money market rates and the longer end of the yield curve via expectations effects
  - to increase the velocity of circulation of excess reserves in the interbank market towards banks that need liquidity to sustain or expand their credit portfolios
  
- **Research:** Jobst, A. & H. Lin (2016)



# Central banks have lowered their policy rates

— Euro area — Sweden — Denmark — Japan — Switzerland



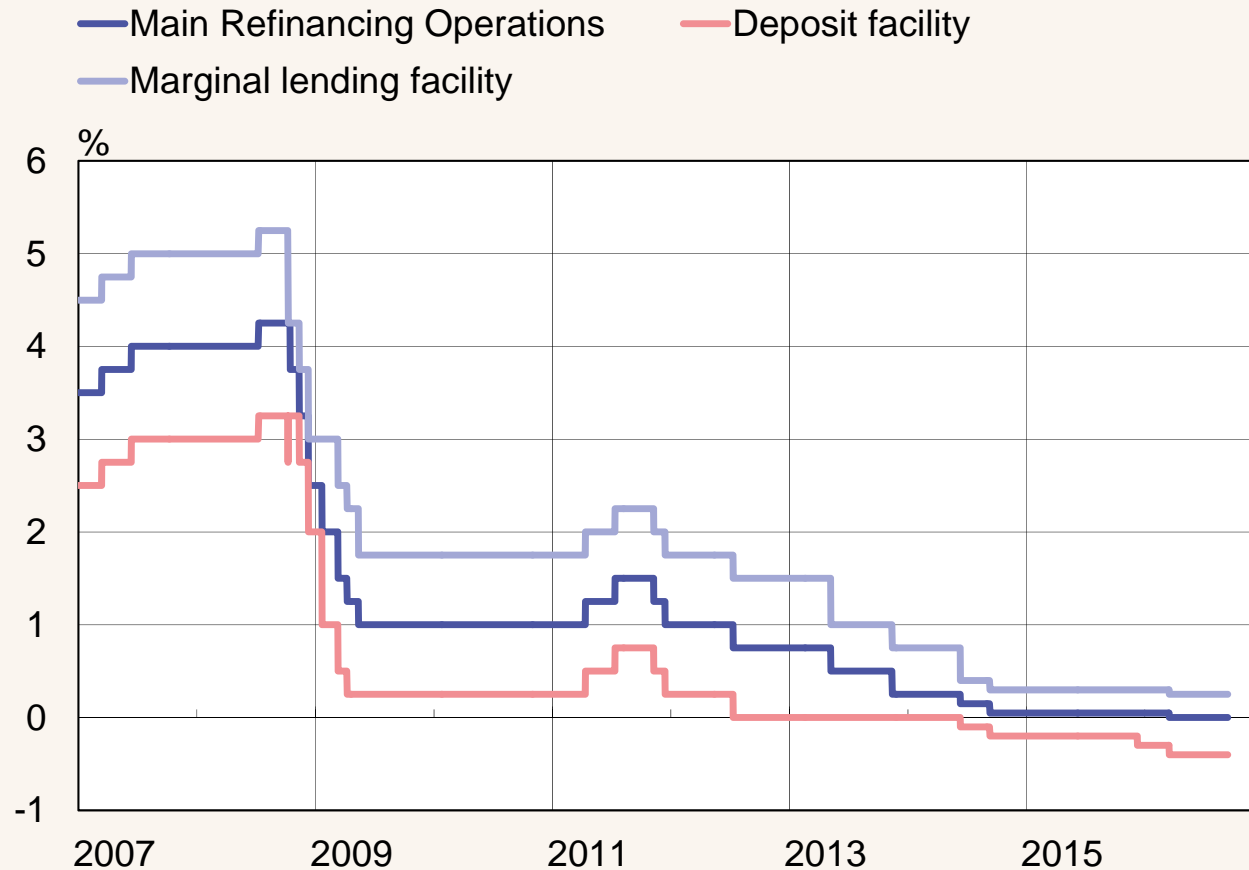
Source: Macrobond.

Effective policy rates: Euro area: deposit rate; United States: fed funds rate; United Kingdom: O/N interbank rate; Japan: deposit rate; Sweden: repo rate; Denmark: certificates of deposit rate; Hungary: deposit rate; Switzerland: 3-month libor target.

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## ECB policy rates in negative territory



Sources: EKP ja Macrobond.

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## II. Monetary policy transmission in the euro area



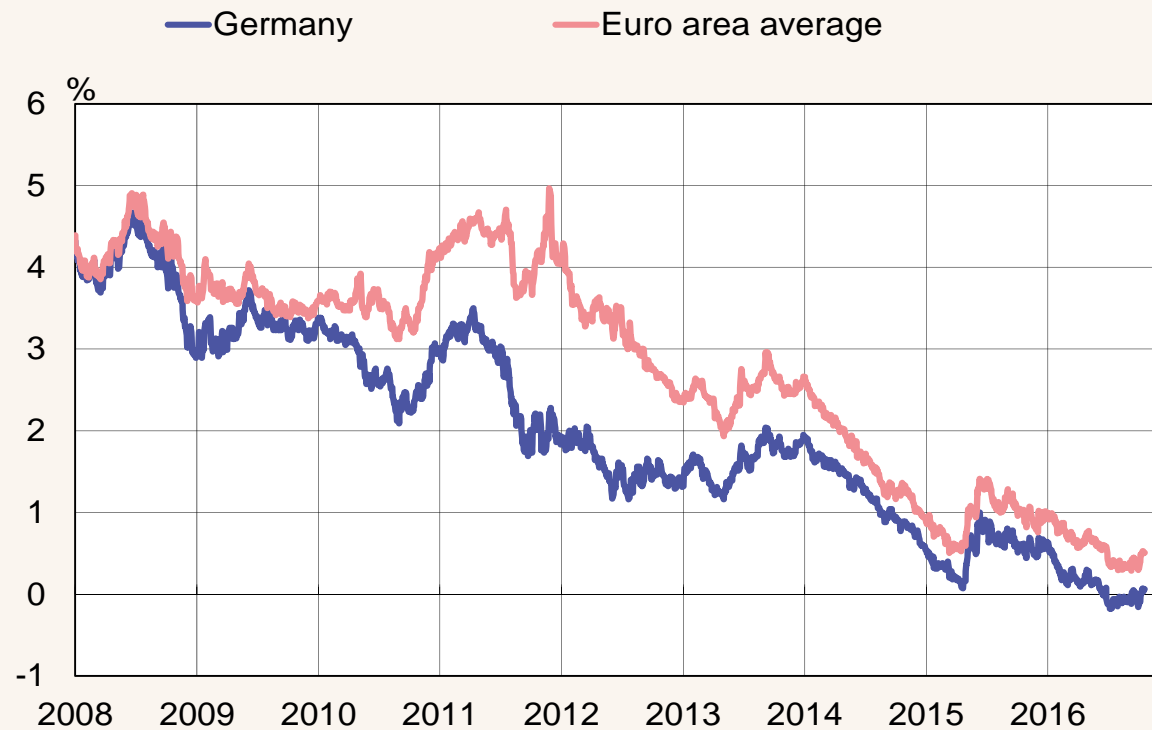
## Monetary policy transmission in the euro area I

- Easing cycle of monetary policy from June 2014 to March 2016.
- To **depress long-term interest rates, ease financial conditions for non-financial corporations and households and boost asset prices** in the euro area.
- More accommodative policy than in other economic regions **weaken the euro exchange rate** against other currencies.
- Overall, the accommodative monetary policy **boosts demand and pushes up inflation in the euro area.**
- The ECB's monetary measures have been geared at **easing overall financial conditions** while at the same time **restoring specific market segments and the bank lending channel.**



# Euro area sovereign bond yields at historically low levels

## 10-year sovereign bond yield



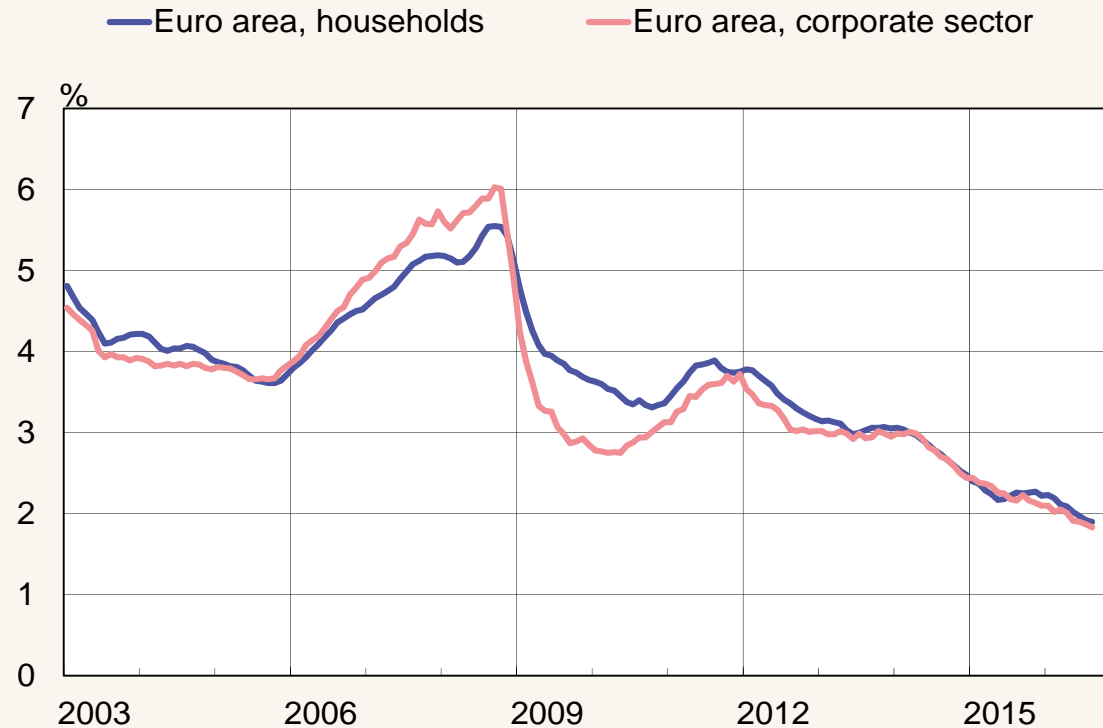
Source: Macrobond.

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# Accommodative monetary policy is reflected in bank lending rates...

## Average interest rate on new loans



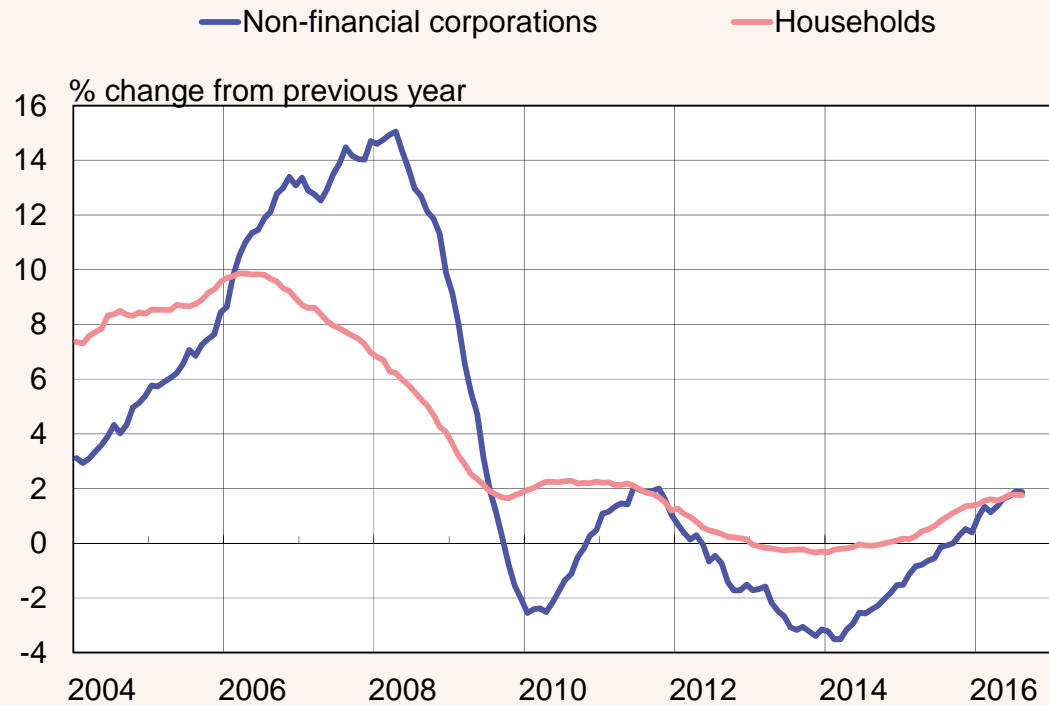
Sources: ECB and Macrobond.

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## ...as well as in credit volumes

### Annual growth in loan stocks



Loan stocks adjusted for balance sheet transfers and securitisation.

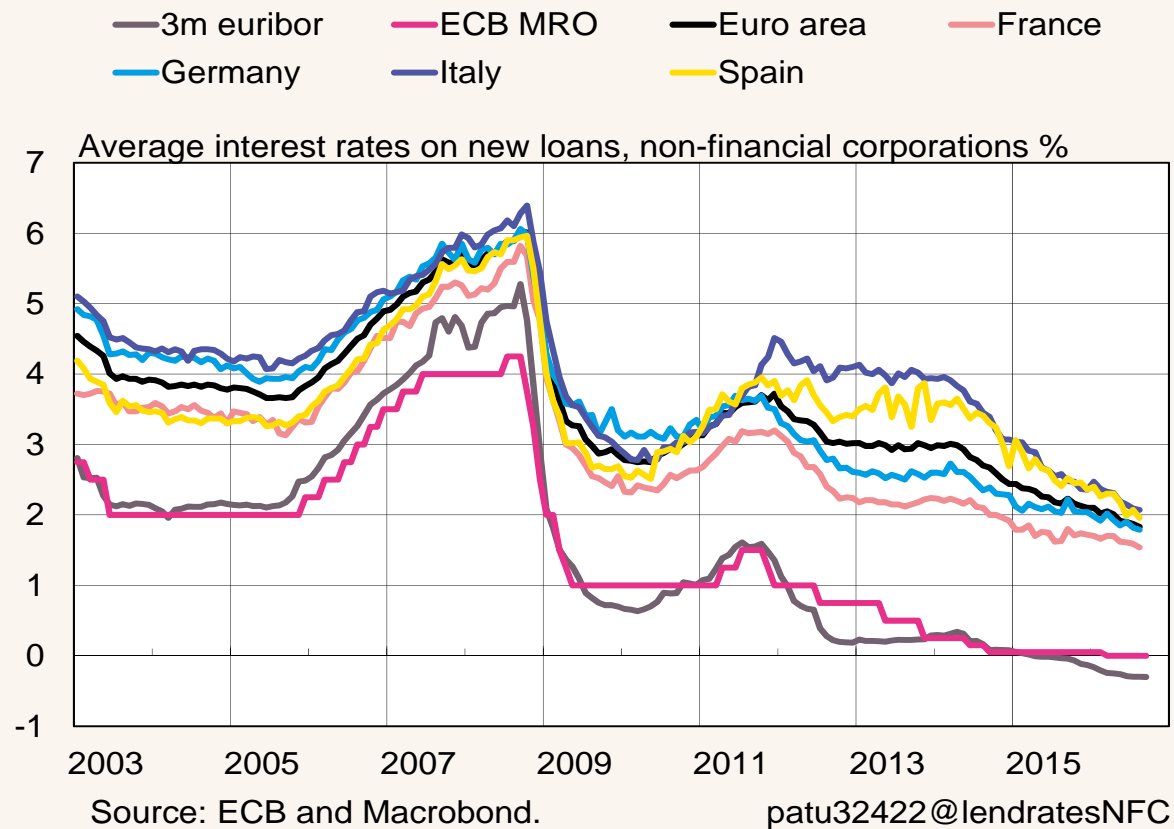
Sources: ECB and Macrobond.

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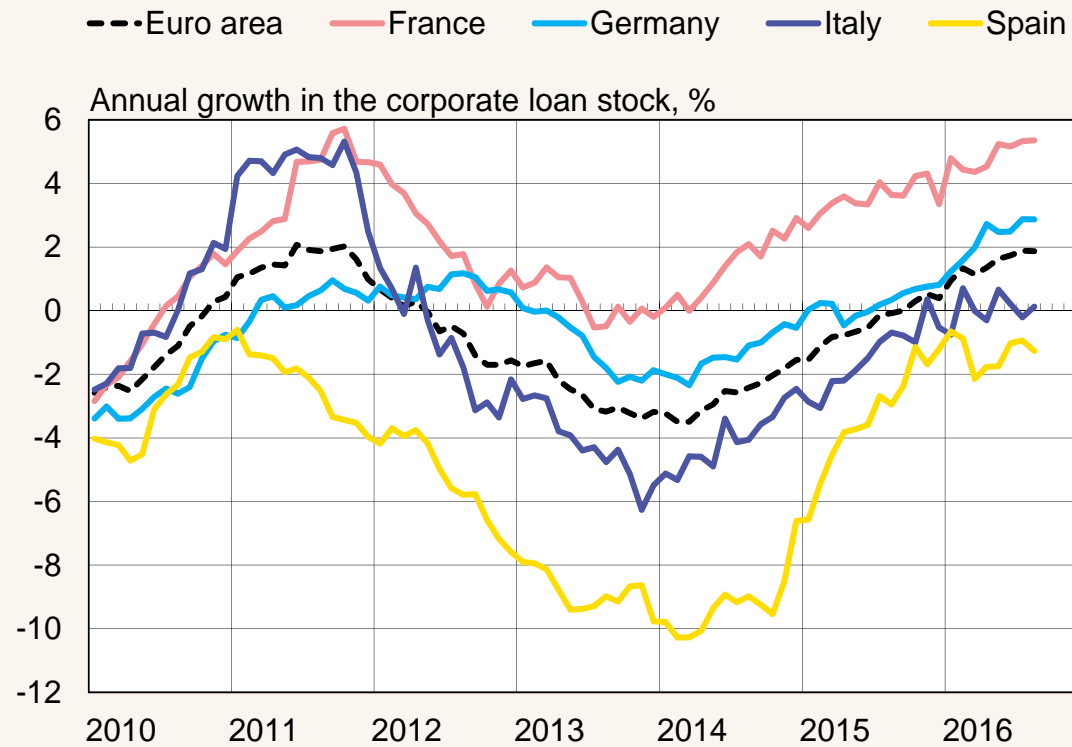


## Interest rates on non-financial corporations bank loans have decreased..





## ...and loan stocks are growing



Sources: ECB and Macrobond.

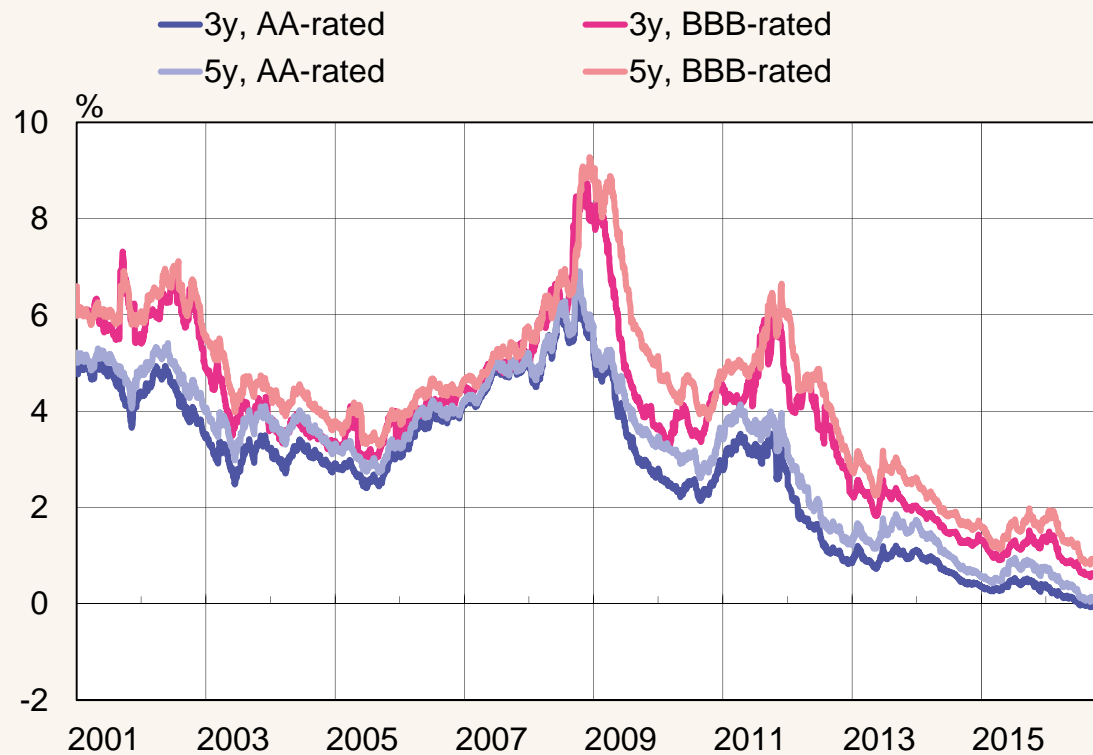
Loan stocks adjusted for balance sheet transfers and securitisation.

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## Corporate bond yields have declined

### Interest rates on corporate bonds

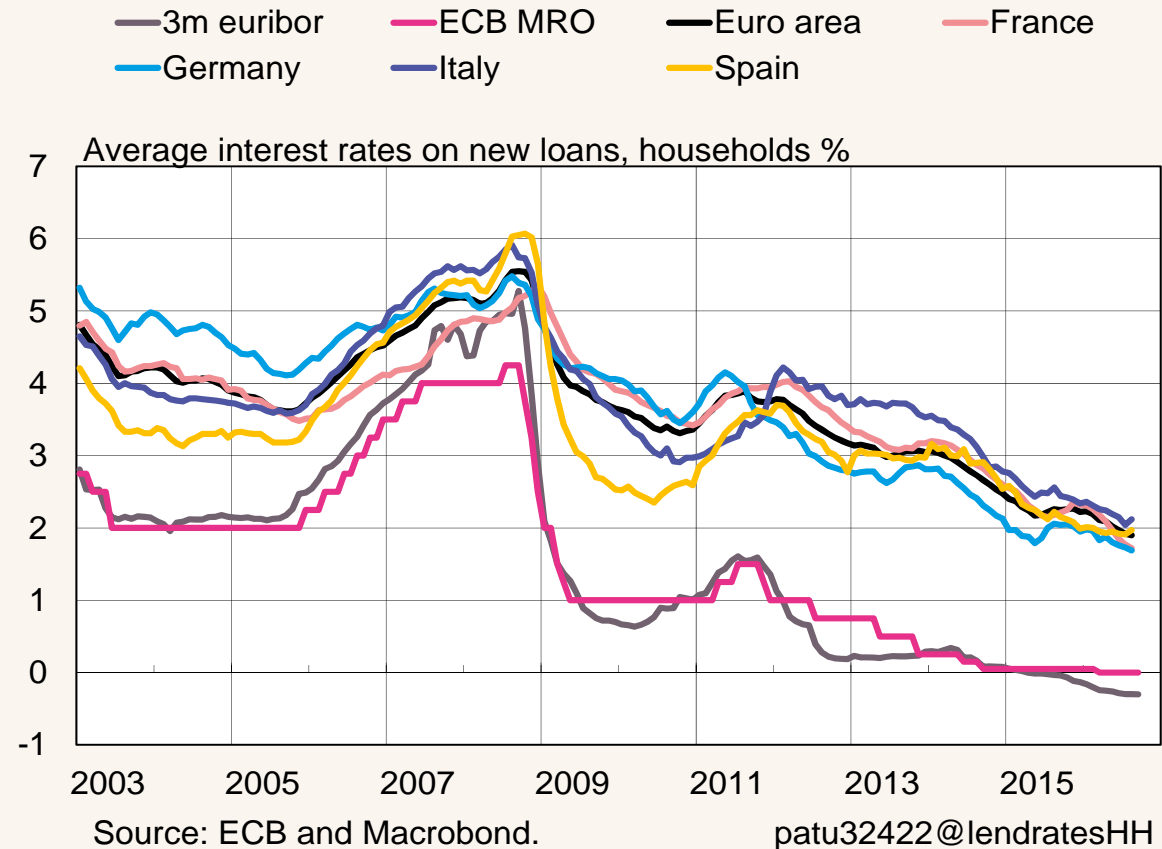


Source: Marcobond.

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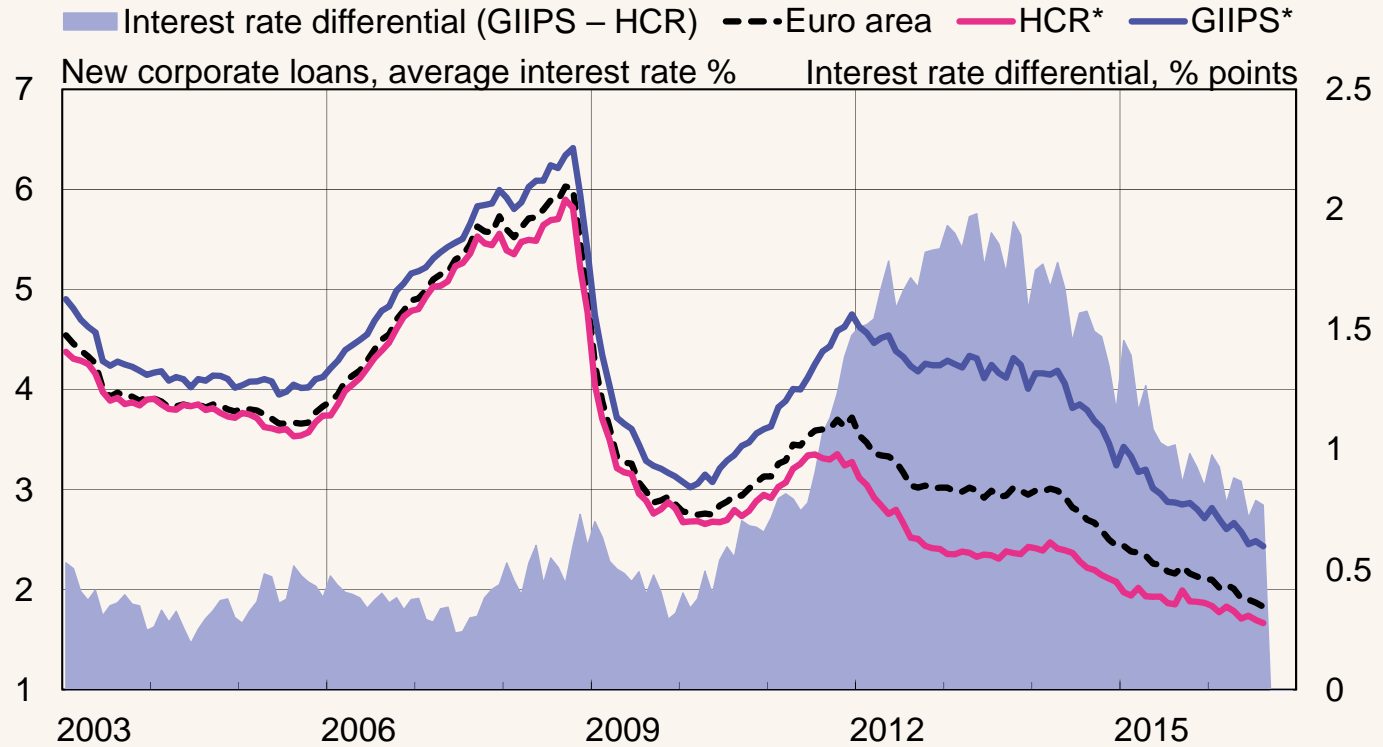


## Interest rates on household bank loans have declined as well





## Interest rates continue to converge



\*HCR: countries with high credit ratings (Austria, Belgium, the Netherlands, France, Germany, Finland).

\*GIIPS: Greece, Ireland, Italy, Portugal, Spain.

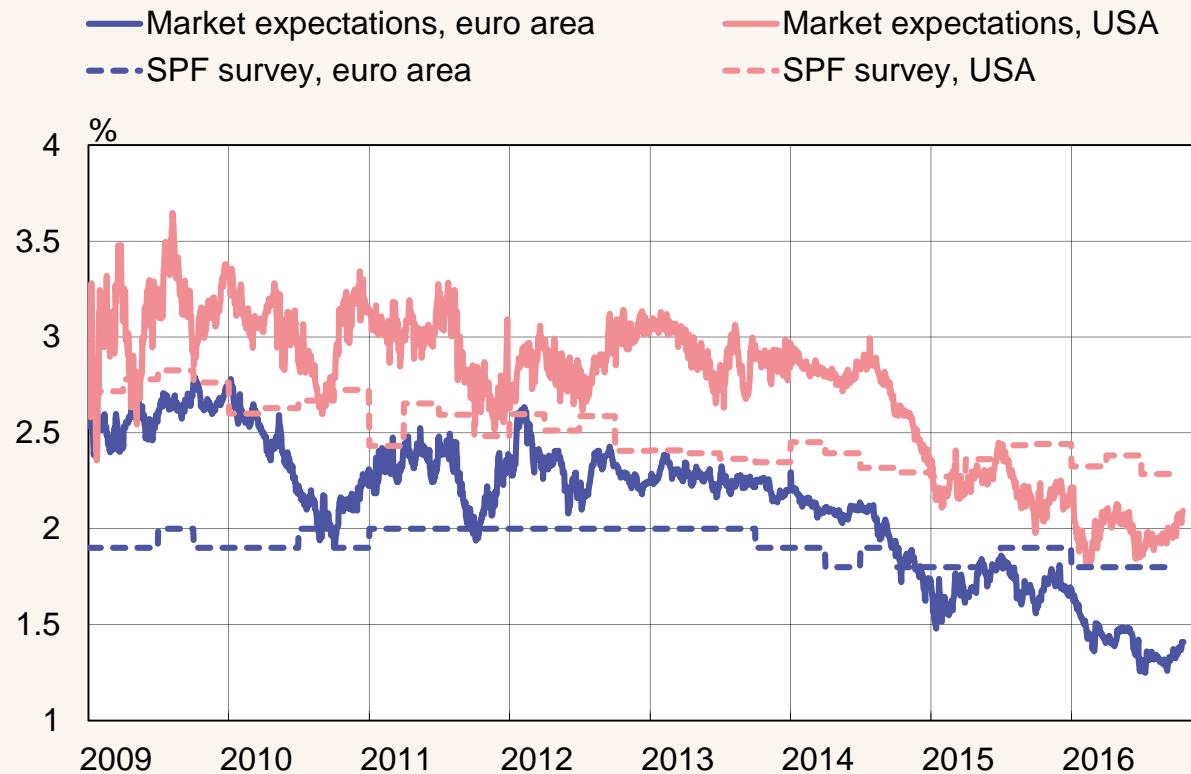
Sources: ECB and Macrobond.

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## The aim of the euro area's exceptionally accommodative monetary policy is to keep inflation expectations anchored

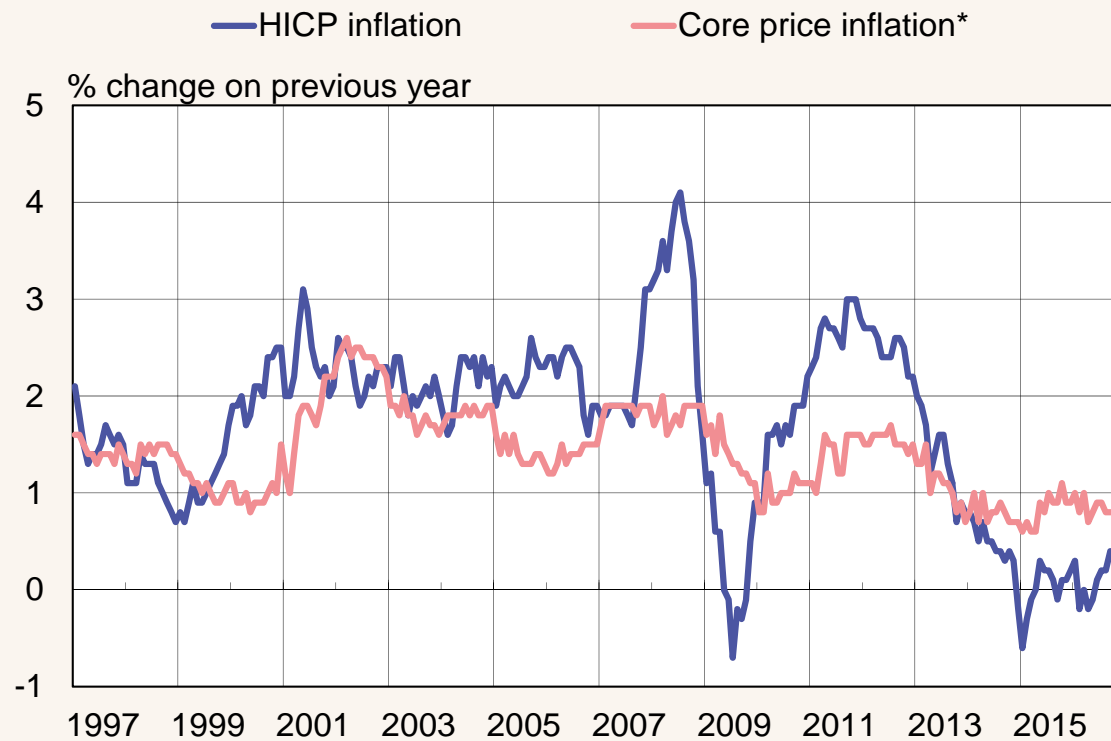


Sources: Bloomberg, ECB, Philadelphia Fed and Macrobond.  
Market expectations are based on 5-year and 10-year inflation-linked swap rates. The SPF survey horizon extends five years ahead.  
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## Consumer price inflation still subdued

Actual HICP and core price inflation in the Euro area



\* HICP excl. energy, food, alcohol and tobacco.

Sources: ECB and Macrobond.

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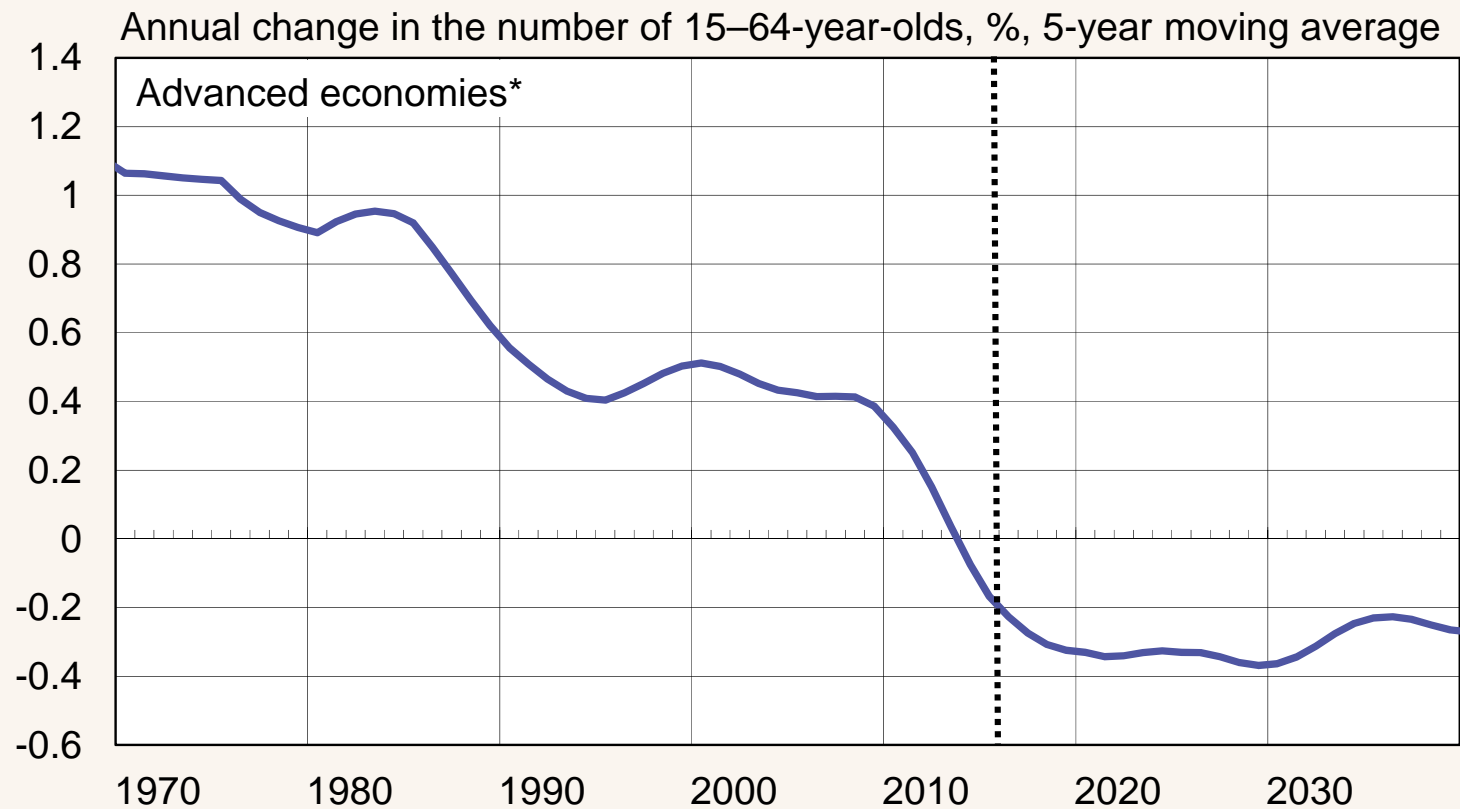


### **III. A global concern: low real interest rates and monetary policy**





## Growth in working-age population has slowed in advanced economies



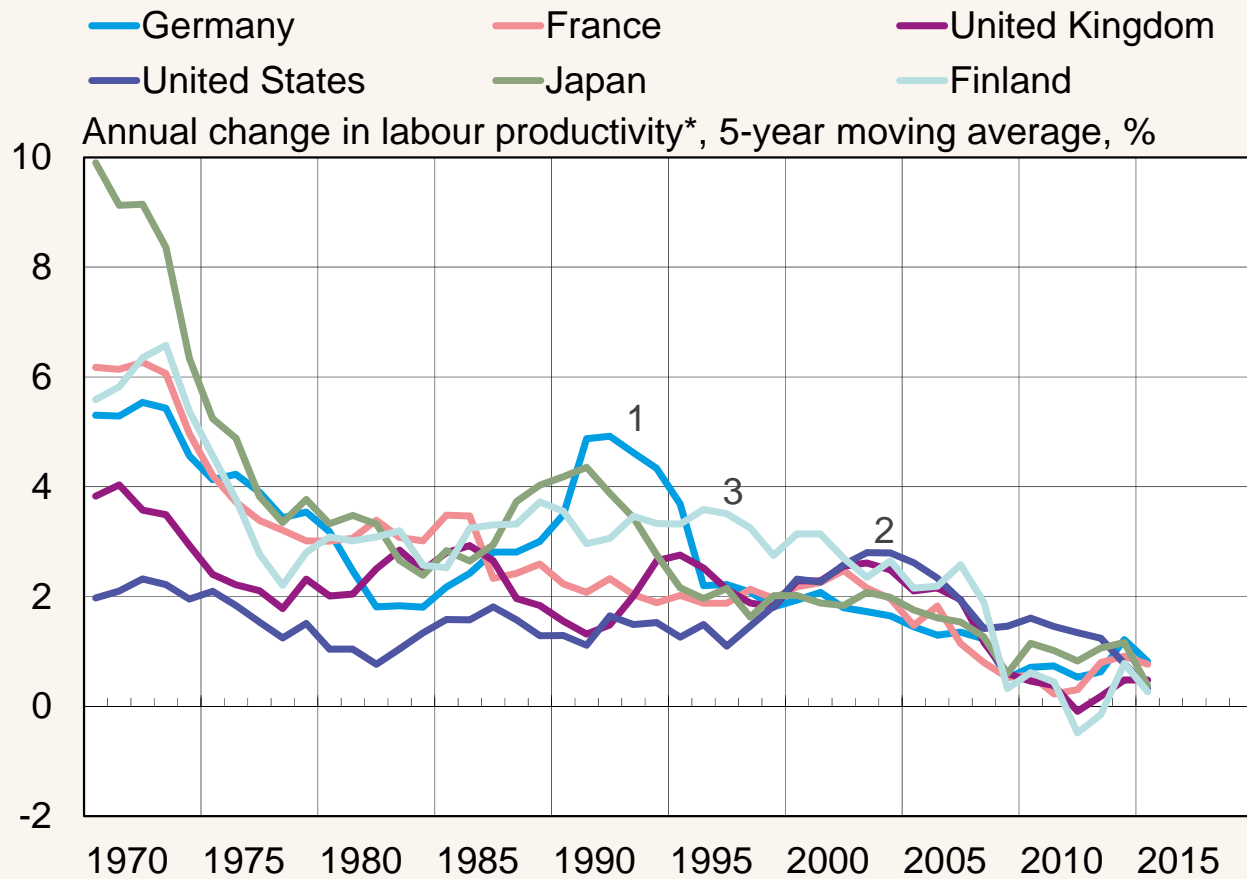
\*) Europe, North America, Australia, New Zealand and Japan.

Source: UN.

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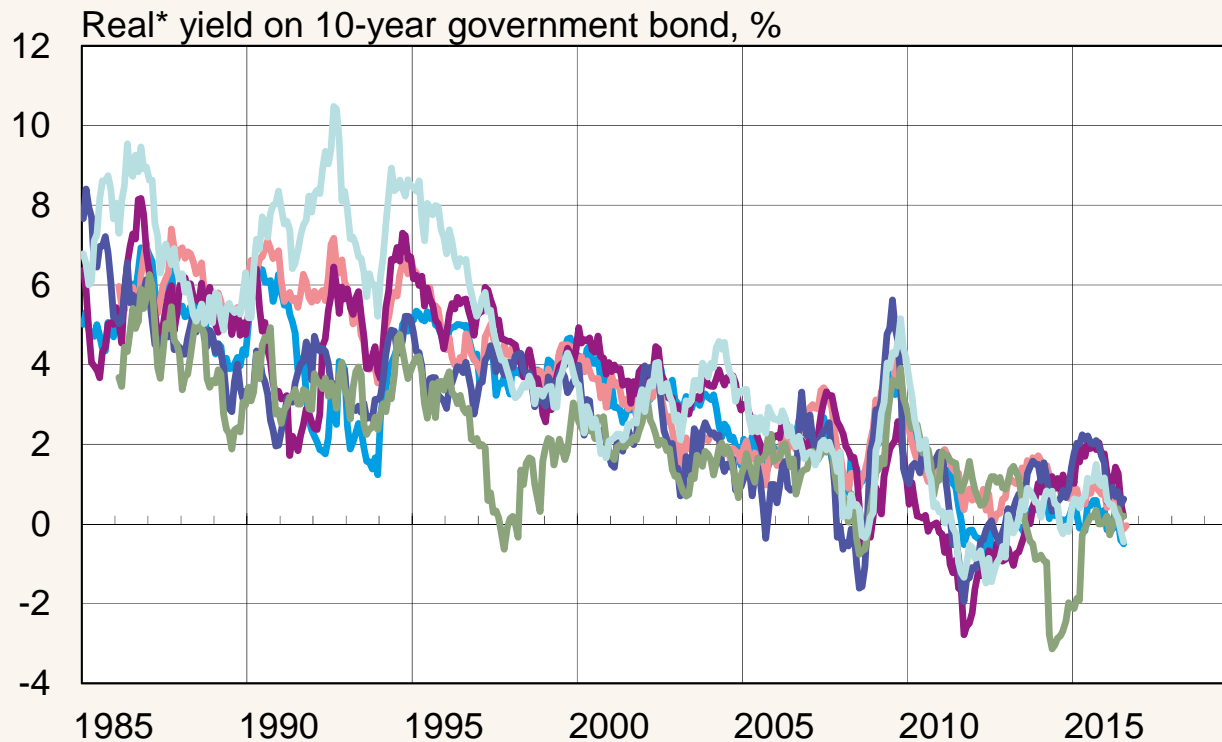
## Growth in labour productivity has slowed in advanced economies





## Long-term real interest rates have declined worldwide

— Germany      — France      — United Kingdom  
— United States      — Japan      — Finland



\*) Difference between nominal interest rate and actual 12-month inflation rate.  
Sources: Macrobond and OECD.

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## Natural rate of interest has decreased

- Natural rate of interest = the real interest rate that prevails when the output of the economy is at its potential level and price developments are stable
- The natural rate of interest has decreased in advanced economies as the expected growth of potential output has declined
  - Space for normal monetary policy has diminished
- If monetary policy is to support the economy, the policy rate must be below the natural rate of interest and, if monetary tightening is desired, the policy rate must be above the natural rate of interest.

***Research: Houston, Laubach & Williams, FRBSF Wp. 2016-11***



**Thank you!**



## Supplement: Research on FED and Forward Guidance

- Woodford, M. (2012), Methods of Policy Accommodation at the Interest-Rate Lower Bound.
- Chen, H., V. Cúrdia & A. Ferrero (2012), The Macroeconomic Effects of Large-Scale Asset Purchase Programs
- Campbell, J. R., J. D. M. Fisher, A. Justiniano & L. Melosi (2016), Forward Guidance and Macroeconomic Outcomes Since the Financial Crisis
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